



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/635,265
Source: OPE
Date Processed by STIC: 8/19/2003

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

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Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
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Revised 04/24/2003



OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/635,265

DATE: 08/21/2003

TIME: 15:19:25

Input Set : N:\Cr4\08192003\J635265.raw

Output Set: N:\CRF4\08212003\J635265.raw

1 <110> APPLICANT: Duke University
 2 York, John D
 3 <120> TITLE OF INVENTION: NOVEL TARGETS FOR LITHIUM THERAPY AND TOXICITY TREATMENT
 4 <130> FILE REFERENCE: 180/158/2
 5 <140> CURRENT APPLICATION NUMBER: US/10/635,265
 6 <141> CURRENT FILING DATE: 2003-08-06
 7 <150> PRIOR APPLICATION NUMBER: US 60/401480
 8 <151> PRIOR FILING DATE: 2002-08-06
 9 <160> NUMBER OF SEQ ID NOS: 24
 10 <170> SOFTWARE: PatentIn version 3.2
 12 <210> SEQ ID NO: 1
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 14 <212> TYPE: DNA
 15 <213> ORGANISM: Homo sapiens
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 22 ccagtaacac tgtgttgatg cgggttgtag cctccgcata ttctattgct caaaaggcag 180
 23 gaatgatagt cagacgtggt attgctgaag gagacctggg tattgtggag aagacctgtg 240
 24 caacagacct gcagaccaa gctgaccgat tggcacagat gagcatatgt tcttcattgg 300
 25 cccggaaatt ccccaaactc acaattatag gggaagagga tctgccttct gaggaagtgg 360
 26 atcaagagct gattgaagac agtcagtggg aagaaatact gaagcaacca tgccatcgc 420
 27 agtacagtgc tattaagaa gaagatctcg tggctctgggt tgatcctctg gatggaacca 480
 28 aggaatatac cgaaggtctt cttgacaatg taacagttct tattggaatt gcttatgaag 540
 29 gaaaagccat agcaggagtt attaaccagc catattacaa ctatgaggca ggaccagatg 600
 30 ctgtgttggg gaggacaatc tggggagttt taggtttagg cgcctttggg tttcagctga 660
 31 aagaagtcct tgctgggaaa cacattatca caactactcg atccatagc aacaagttgg 720
 32 ttactgactg tgttgctgct atgaaccccg atgctgtgct gcgagtagga ggagcaggaa 780
 33 ataagattat tcagctgatt gaaggcaaag cctctgctta tgtatttgca agtccctggtt 840
 34 gtaagaagtg ggatacttgt gctccagaag ttattttaca tgctgtggga ggcaagttaa 900
 35 ccgatatcca tgggaatggt cttcagtacc acaaggatgt gaagcatatg aactctgcag 960
 36 gagtccctggc cacactgagg aattatgact actatgcaag ccgagttcca gaatctatta 1020
 37 aaaatgcact tgttccttaa aggaaagttt catttgcccg ggcgcggttg ctcatgcctg 1080
 38 taatcccagc actttgggag gccgaggcag gtggatcact tgagctcagg agtttgagac 1140
 39 cagcctgggc aatatcgtga gaccccatct ctacaaaaat acaaattaac tgggcatcct 1200
 40 gtcatgcgcc tgtcatccca gctacttgag aggctgaagc agaagaatct cttgagcccg 1260
 41 gaaggcggag gttgcagtga gctgagatcg tgccactgca ctccagcctg agtgacagga 1320
 42 gttaagccct gtctcagaaa aaaaacataa acccaaaaag tacttaaaagt ttcatttact 1380
 43 tactaggaaa agacttggtt ctcaaataat acattttaag attaattggg tagaattaga 1440
 44 gttccacctt tatcattggt gacagtgatt tatatttagt tatatattta gaataaaaat 1500

Does Not Comply
Corrected Diskette Needed

P.3

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/635,265

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Input Set : N:\Cr4\08192003\J635265.raw

Output Set: N:\CRF4\08212003\J635265.raw

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47 ttgccaatga cagttaggcg tgcacactga ccattcactg ataaaccaga ttctgcctga 1680
48 atctgaaggg attgcttgta gcatagggtt tagtggcgtg atcttggtgc actgcggccc 1740
49 gcttccgggg ttcatgcttc tcctgcctag ctccgggtag ctgggactgc agcacggccc 1800
50 acgctggtaa ttttttgtat gatggtgaga agttttcacc gtgttgccag gatggcttat 1860
51 cctgacatcg tgatctgtat gcctcggatc ccaaagtgc tgggatgaca gctgtgagcc 1920
52 accgcaactg gcttaaacca gatttcttta gggcacattt ttttgaatc tcactctgtt 1980
53 tttcacagta attttaaaaa cgttttatcc aattagaata tatatgatgt tattatatat 2040
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55 aaaaaaaaaa aaa 2113
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59 <212> TYPE: PRT
60 <213> ORGANISM: Homo sapiens
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62 <221> NAME/KEY: PEPTIDE
63 <222> LOCATION: (1)..(308)
64 <400> SEQUENCE: 2
65 Met Ala Ser Ser Asn Thr Val Leu Met Arg Leu Val Ala Ser Ala Tyr
66 1 5 10 15
67 Ser Ile Ala Gln Lys Ala Gly Met Ile Val Arg Arg Val Ile Ala Glu
68 20 25 30
69 Gly Asp Leu Gly Ile Val Glu Lys Thr Cys Ala Thr Asp Leu Gln Thr
70 35 40 45
71 Lys Ala Asp Arg Leu Ala Gln Met Ser Ile Cys Ser Ser Leu Ala Arg
72 50 55 60
73 Lys Phe Pro Lys Leu Thr Ile Ile Gly Glu Glu Asp Leu Pro Ser Glu
74 65 70 75 80
75 Glu Val Asp Gln Glu Leu Ile Glu Asp Ser Gln Trp Glu Glu Ile Leu
76 85 90 95
77 Lys Gln Pro Cys Pro Ser Gln Tyr Ser Ala Ile Lys Glu Glu Asp Leu
78 100 105 110
79 Val Val Trp Val Asp Pro Leu Asp Gly Thr Lys Glu Tyr Thr Glu Gly
80 115 120 125
81 Leu Leu Asp Asn Val Thr Val Leu Ile Gly Ile Ala Tyr Glu Gly Lys
82 130 135 140
83 Ala Ile Ala Gly Val Ile Asn Gln Pro Tyr Tyr Asn Tyr Glu Ala Gly
84 145 150 155 160
85 Pro Asp Ala Val Leu Gly Arg Thr Ile Trp Gly Val Leu Gly Leu Gly
86 165 170 175
87 Ala Phe Gly Phe Gln Leu Lys Glu Val Pro Ala Gly Lys His Ile Ile
88 180 185 190
89 Thr Thr Thr Arg Ser His Ser Asn Lys Leu Val Thr Asp Cys Val Ala
90 195 200 205
91 Ala Met Asn Pro Asp Ala Val Leu Arg Val Gly Gly Ala Gly Asn Lys
92 210 215 220
93 Ile Ile Gln Leu Ile Glu Gly Lys Ala Ser Ala Tyr Val Phe Ala Ser
94 225 230 235 240

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Input Set : N:\Crf4\08192003\J635265.raw

Output Set: N:\CRF4\08212003\J635265.raw

95 Pro Gly Cys Lys Lys Trp Asp Thr Cys Ala Pro Glu Val Ile Leu His
 96 245 250 255
 97 Ala Val Gly Gly Lys Leu Thr Asp Ile His Gly Asn Val Leu Gln Tyr
 98 260 265 270
 99 His Lys Asp Val Lys His Met Asn Ser Ala Gly Val Leu Ala Thr Leu
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 102 290 295 300
 103 Ala Leu Val Pro
 104 305
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 115 <223> OTHER INFORMATION: Z is any number of integers of any amino acid.
 116 <220> FEATURE:
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 124 substituted in place thereof.
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 128 <223> OTHER INFORMATION: X is glycine or an amino acid that can be conservatively
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 130 <220> FEATURE:
 131 <221> NAME/KEY: MISC_FEATURE
 132 <222> LOCATION: (11)..(11)
 133 <223> OTHER INFORMATION: X is threonine or an amino acid that can be conservatively
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 135 <220> FEATURE:
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 138 <223> OTHER INFORMATION: Z is any number of integers of any amino acid.
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 141 <222> LOCATION: (13)..(13)
 142 <223> OTHER INFORMATION: X is tryptophan or an amino acid that can be conservatively
 143 substituted in place thereof.
 144 <220> FEATURE:

"Glx can
 only represent
 ? Glutamine or
 Glutamic
 acid, nothing
 ? else

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Input Set : N:\Crf4\08192003\J635265.raw

Output Set: N:\CRF4\08212003\J635265.raw

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147 <223> OTHER INFORMATION: X is aspartic acid or an amino acid that can be
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148     substituted in place thereof.
149 <220> FEATURE:
150 <221> NAME/KEY: MISC_FEATURE
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152 <223> OTHER INFORMATION: X is any amino acid.
153 <400> SEQUENCE: 3
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155         1             5             10             15
156     Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gly
157         20             25
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162 <213> ORGANISM: Artificial
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164 <223> OTHER INFORMATION: Li-sensitive sequence uniting motif for Impasel.
165 <220> FEATURE:
166 <221> NAME/KEY: MISC_FEATURE
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168 <223> OTHER INFORMATION: X is any amino acid.
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179 <222> LOCATION: (96)..(218)
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186 <221> NAME/KEY: MISC_FEATURE
187 <222> LOCATION: (234)..(290)
188 <223> OTHER INFORMATION: X is any amino acid.
189 <400> SEQUENCE: 4
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191         1             5             10             15
192     Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
193         20             25             30
194     Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa

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Input Set : N:\Crf4\08192003\J635265.raw

Output Set: N:\CRF4\08212003\J635265.raw

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195          35          40          45
196      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
197          50          55          60
198      Xaa Xaa Xaa Xaa Xaa Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
199      65          70          75          80
200      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Pro Ile Asp Gly Thr Xaa
201          85          90          95
202      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
203          100          105          110
204      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
205          115          120          125
206      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
207          130          135          140
208      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
209      145          150          155          160
210      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
211          165          170          175
212      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
213          180          185          190
214      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
215          195          200          205
216      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Asp Xaa Xaa Xaa
217          210          215          220
218      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gly Xaa Xaa Xaa Xaa Xaa Xaa
219      225          230          235          240
220      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
221          245          250          255
222      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
223          260          265          270
224      Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
225          275          280          285
226      Xaa Xaa
227          290
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232 <213> ORGANISM: Artificial
233 <220> FEATURE:
234 <223> OTHER INFORMATION: Li-sensitive sequence uniting motif for lptase.
235 <220> FEATURE:
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237 <222> LOCATION: (1)..(53)
238 <223> OTHER INFORMATION: X is any amino acid.
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240 <221> NAME/KEY: MISC_FEATURE
241 <222> LOCATION: (55)..(78)
242 <223> OTHER INFORMATION: X is any amino acid.
243 <220> FEATURE:
244 <221> NAME/KEY: MISC_FEATURE

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/635,265

DATE: 08/21/2003
TIME: 15:19:26

Input Set : N:\Crf4\08192003\J635265.raw

Output Set: N:\CRF4\08212003\J635265.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:4; Xaa Pos. 62,63,64,65,66,67,68,69,72,73,74,75,76,77,78,79,80,81,82
Seq#:4; Xaa Pos. 83,84,85,86,87,88,89,96,97,98,99,100,101,102,103,104,105
Seq#:4; Xaa Pos. 106,107,108,109,110,111,112,113,114,115,116,117,118,119
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RAW SEQUENCE LISTING ERROR SUMMARY

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Input Set : N:\Crf4\08192003\J635265.raw

Output Set: N:\CRF4\08212003\J635265.raw

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Seq#:6; Xaa Pos. 102,103,104,105,106,107,108,109,110,111,112,113,114,115

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 3
Seq#:3; Line(s) 123,128,133,142,147
Seq#:17; Line(s) 481
Seq#:20; Line(s) 525

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24

VERIFICATION SUMMARY

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Input Set : N:\Crf4\08192003\J635265.raw

Output Set: N:\CRF4\08212003\J635265.raw

L:154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
M:341 Repeated in SeqNo=3
L:190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
M:341 Repeated in SeqNo=4
L:260 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
M:341 Repeated in SeqNo=5
L:342 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
M:341 Repeated in SeqNo=6